

London will be to that of *Paris* as 60 to 56, or as 15 to 14; or *London* will be *one fourteenth* greater than *Paris*. But to determine what Proportion these two Cities really bear to each other, requires a more exact Mensuration of *London* than any we yet have, which whoever would undertake, I think he cannot follow a better Method than that Mr. *de Lisle* has taken, and would advise him to consult the Account upon which the foregoing Reflections are made, which he may find in the *Memoires* of the *Royal Academy of Sciences*, for the Year 1725. pag. 48.

IV. *An Account of an Aneurysm of the Aorta, (dissected in St. Bartholomew's Hospital) by Pierce Dod, M. D. Fellow of the College of Physicians, and Physician to that Hospital.*

AN Aneurysm, without Doubt, is a Tumour arising from some Disorder in an Artery; but what that Disorder is, or whence it arises, is not so well agreed, the Accounts which are given of it, being widely different and uncertain.

The Name seems to imply, that it is a Dilatation of the Vessel; but *Galen* describes it to be a Tumour, which arises not from any Dilatation or Relaxation of an arterial Vessel, and the Blood therein contain'd; but from an Extravasation of the Blood from some Rupture of the Artery.

Agree-

Agreeable to this are the Opinions of all the rest of the Antients, as likewise of the *Arabians*, who borrowed most that they have from them.

Fornelius, as 'tis said, is the first who maintained, that the Artery was only dilated, and not burst in an Aneurysm, and that the Blood was contain'd within the Coats of it, as it is within those of the Vein in a *Varix*; which is therefore called by some, ἡ φλέψ ἀνευρυσμική.

Sennertus makes it to be a Dilatation, not of both the Coats, but of the outward one only, the inner or muscular one being first bursten, or broken, and he is followed herein by most of those who have succeeded him, excepting *Wiseman* and some others, who tell us, that it is nothing but an Extravasation of the Blood, bursting through the Coats of the Arteries into the Interstices of the Muscles, and there forming a Tumour suitable to the Cavity that it findeth, the Artery remaining undistended or undilated all the While; and that in all those Aneurysms, which have come to be examined, both the Coats of the Artery have constantly been found open.

This being the State of Opinions with relation to an Aneurysm, we had lately an Opportunity of examining further into it, by Means of a Patient, who was taken into our Hospital.

She was about four and thirty Years of Age, and of a good Constitution, but there was a Tumour, bigger than one's Fist, which began from the upper Part of the *Sternum*, between the Origins of the *Musculi Mastoidei*, and extended it self to the *Pomum Adami*, almost up to her Chin, and possess'd all the Breadth between the two *Carotid Arteries*.

The Account that she gave of the Occasion of it was, that her Husband, being a passionate Man, took her by the Throat one Day as she was crying out upon some Occasion or other, and grip'd her so hard as almost to throttle her.

She was then with Child, and immediately perceiv'd something of a Pain a little above her Heart, and a few Days afterwards there appeared a Tumour about the Bigness of the Top of her Finger, just above the *Sternum*, and so continued without Encrease or Pulsation, till she was brought to Bed, when it began to be enlarged, upon her having a hard Labour; agreeable to what Practitioners have observ'd, that Accidents of this Nature often happen to Women in Labour.

This was about four Years since, and from that Time it had continued gradually encreasing, until it was arrived to almost the highest Pitch of Extension; and she had all along been troubl'd with a Palpitation, Pain and Straitness within the *Thorax*, great Interruptions in her Rest, and frequent Sinkings, together with a constant beating along the Chest up to the Tumour; in which likewise there was a Pulsation correspondent to the regular Pulse, shaking the Tumour at every Stroke, and manifest to the Eye as well as the Touch. Notwithstanding this she was otherwise hearty, had her *Menses* regularly, had a good Appetite, and was mostly chearful and lively, and never more so than just before the fatal Period of the Tumour.

The *Apex* of the Tumour, which was towards the Middle, in the prominent Part of it was beginning to mortifie, through an over Distension, and the common outward Integuments were the first that seemed to suffer: But the Distension continuing, the Mortification encreas'd,

increas'd, and was quickly communicated to the outer Coat of the Artery likewise, which therefore slough'd off as well as the other Integuments, and being at Length wore away, just at the Extremity made a sudden Aperture, about twice the Bigness of a Goose's Quill. The Blood instantly gush'd forth, as from a Stream or Torrent, and the poor Patient died in less than a Minute.

Upon opening the Body, we began from the Heart, in which there was little remarkable, except that the left Ventricle was somewhat larger, as were likewise the *Columnæ carneæ*, than they naturally should be. There was little observable likewise in the *Aorta* itself, till we came to the Curvature; upon the upper Side of which was the *Basis* of the Tumour, forming a cylindrical Stem of four Inches long while in the Cavity of the *Thorax*; but extending it self into a circular Form of a larger Dimension, when it became external.

Upon opening the under Part of the *Aorta* opposite to this *Basis*, and carrying the Incision throughout its whole Extent in the *Thorax*, the Trunk retain'd its usual Form and Dimensions, and was not at all dilated; but in the upper Part above describ'd, just on this Side the Orifice of the right *subclavian Artery* (which was nearer than usual to the Orifice of the left *Carotid*) there was a preternatural circular Aperture of half an Inch Diameter. Upon dividing this Aperture, and carrying on the Incision to the *Apex* of the Tumour, its whole internal Substance appear'd. The Edges of the Aperture at the Basis of the Tumor were hard, and almost cartilaginous, and seemingly the Remains of thick and fleshy Fibres; which upon a nicer Inspection they appear'd to be in Fact, *viz.* the broken Fibres of the in-

ner, or what is commonly call'd, the muscular Coat of the Artery : which terminating here, the Tumour immediately encreas'd to 2 Inches in Diameter, and continued of that Dimension, till it came out at the Neck, between the Clavicles ; but then extended it self circularly to a Diameter of above 3 Inches, the Covering of which was nothing else but the outer Coat of the same Artery all along dilated from the Base, even to the Extremity of the Tumour.

The Cavity was for the most Part fill'd with a Sort of *Polypus*, or *Sarcoma* ; in which nevertheless there were three Sinuses, or Passages, that were kept open by the constant Influx of the Blood, and communicated near the *Apex* with one another ; (that in the Middle being the largest,) and terminating in one towards the Extremity of the Tumour, not far from where it broke.

Such was the State of the Aneurysm in this Subject, what it may be in others, future Enquiries must determine.

V. *Some Observations on Aneurysms in general, and in particular, on the fore-going.* By F. Nicholls, M. B. *Præl. of Anatomy*, Oxon. & F. R. S.

AN Aneurysm is by all Authors defin'd to be a soft circumscrib'd Tumor, in which there is a sensible Pulsation, cotemporary with the Pulsation of the Artery, to which it adheres. As it is certain, that any Tumor of what Kind soever, lying on, or adhering to
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